

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-28 (Canceled).

29. (New) A communication device having a radio link control (RLC) transparent mode entity, comprising:

a transmission buffer receiving at least one service data unit from an upper layer; and

a segmentation module providing at least one protocol data unit based on the at least one service data unit received from the transmission buffer, the segmentation module providing the at least one protocol data unit to a lower layer.

30. (New) The communication device of claim 29, wherein the RLC transparent mode entity receives information regarding a number of protocol data units that can be transferred in one transmission time interval.

31. (New) The communication device of claim 30, wherein the information further relates to a protocol data unit size.

32. (New) The communication device of claim 30 or 31, wherein the information is provided by a MAC-STATUS-Ind primitive from the lower layer, which comprises a media access control (MAC) layer.

33. (New) The communication device of claim 29, wherein the at least protocol data unit is provided to the lower layer through a logical channel.

34. (New) The communication device of claim 33, wherein the logical channel comprises a dedicated control channel (DCCH) or a dedicated traffic channel (DTCH).

35. (New) The communication device of claim 34, wherein the logical channel further comprises a common control channel (CCCH) or a shared control channel (SHCCH).

36. (New) The communication device of claim 34, wherein the logical channel further comprises a broadcast control channel (BCCH) or a paging control channel (PCCH).

37. (New) The communication device of claim 29 or 33, wherein the transmission buffer receives the at least one service data unit through a transparent mode service access point.

38. (New) The communication device of claim 33, wherein the at least one protocol data unit is sent to a peer entity of a receiver side.

39. (New) The communication device of claim 29, wherein the at least one service data unit is segmented by the segmentation module depending upon when a service is established.

40. (New) The communication device of claim 29 or 39, wherein the at least one service data unit is segmented by the segmentation module depending upon transport formats of a transport channel.

41. (New) The communication device of claim 29, wherein at least one protocol data unit provided by the segmentation module comprises one complete service data unit or segments of one complete service data unit.

42. (New) The communication device of claim 29, further comprising
a buffer for receiving at least one transparent mode protocol data unit from the lower layer; and

a reassembly module for forming at least one RLC service data unit based on the at least one transparent mode protocol data unit provided by the buffer, the reassembly module

providing the at least one RLC service data unit to the upper layer.

43. (New) The communication device of claim 42, wherein the at least one transparent mode protocol data unit from the lower layer is received through a logical channel.

44. (New) The communication device of claim 43, wherein the logical channel comprises a dedicated control channel (DCCH) or a dedicated traffic channel (DTCH).

45. (New) The communication device of claim 44, wherein the logical channel further comprises a common control channel (CCCH) or a shared channel control channel (SHCCH).

46. (New) The communication device of claim 44, wherein the logical channel further comprises a broadcast control channel (BCCH) or a paging control channel (PCCH).

47. (New) The communication device of 42 or 43, wherein the at least one RLC service data unit is provided to the upper layer through a transparent mode service access point.

48. (New) The communication device of claim 42, wherein the reassembly module reassembles the at least one transparent mode protocol data unit.

49. (New) The communication device of claim 42, wherein the reassembly module provides a transparent mode protocol data unit of the at least one transparent mode protocol data unit as an RLC service data unit if segmentation was not configured.

50. (New) The communication device of claim 39, wherein no overhead is added to each of the at least one protocol data unit.

51. (New) The communication device of claim 43, wherein the at least one transparent mode protocol data unit is received from a peer entity of a transmitting side.

52. (New) A method for a transparent mode data transfer by a transparent mode entity, comprising:

receiving at least one service data unit by a transmission buffer;

providing at least one protocol data unit based on at least one service data unit of the transmission buffer; and

providing the at least one protocol data unit to a lower layer.

53. (New) The method of claim 29, further comprising providing information regarding a number of protocol data units that can be transferred in one transmission time interval to the transparent mode entity by the lower layer.

54. (New) The method of claim 30, wherein the information further relates to a protocol data unit size.

55. (New) The method of claim 53 or 54, wherein the information is provided by a MAC-STATUS-Ind primitive from the lower layer, which comprises a media access control (MAC) layer.

56. (New) The method of claim 52, wherein the at least protocol data unit is provided to the lower layer through a logical channel.

57. (New) The method of claim 56, wherein the logical channel comprises a dedicated control channel (DCCH) or a dedicated traffic channel (DTCH).

58. (New) The method of claim 57, wherein the logical channel further comprises a common control channel (CCCH) or a shared channel control channel (SHCCH).

59. (New) The method of claim 57, wherein the logical channel further comprises a broadcast control channel (BCCH) or a paging control channel (PCCH).

60. (New) The method of claim 52 or 56, wherein the transmission buffer receives the at least one service data unit through a transparent mode service access point.

61. (New) The method of claim 52, wherein the at least one service data unit of the transmission buffer is segmented by a segmentation module to provide the at least one protocol data unit depending upon when a service is established.

62. (New) The method of claim 61, wherein the at least one service data unit is segmented by a segmentation module to provide the at least one protocol data unit depending upon transport formats of a transport channel.

63. (New) The method of claim 52, wherein at least one protocol data unit provided by a segmentation module comprises one complete service data unit or segments of one complete service data unit.

64. (New) The method of claim 52, further comprising
receiving at least one transparent mode protocol data unit from the lower layer;

and

forming at least one RLC service data unit based on the at least one transparent mode protocol data unit provided by the buffer; and
providing the at least one RLC service data unit to an upper layer.

65. (New) The method of claim 64, wherein the at least one transparent mode protocol data unit from the lower layer is received through a logical channel.

66. (New) The method of claim 65, wherein the logical channel comprises a dedicated control channel (DCCH) or a dedicated traffic channel (DTCH).

67. (New) The method of claim 66, wherein the logical channel further comprises a common control channel (CCCH) or a shared channel control channel (SHCCH).

68. (New) The method of claim 66, wherein the logical channel further comprises a broadcast control channel (BCCH) or a paging control channel (PCCH).

69. (New) The method of 64 or 65, wherein the at least one RLC service data unit is provided to the upper layer through a transparent mode service access point.

70. (New) The method of claim 64, wherein the at least one transparent mode protocol data unit is reassembled to provide the at least one RLC service data unit.

71. (New) The method of claim 64, wherein a transparent mode protocol data unit of the at least one transparent mode protocol data unit is provided as an RLC service data unit if segmentation was not configured.

72. (New) The method of claim 52, wherein no overhead is added to each of the at least one protocol data.

73. (New) The method of claim 65, wherein the at least one transparent mode protocol data unit is received from a peer entity of a transmitting side.

74. (New) The method of claim 56, wherein the at least one protocol data unit is sent to a peer entity of a receiver side.